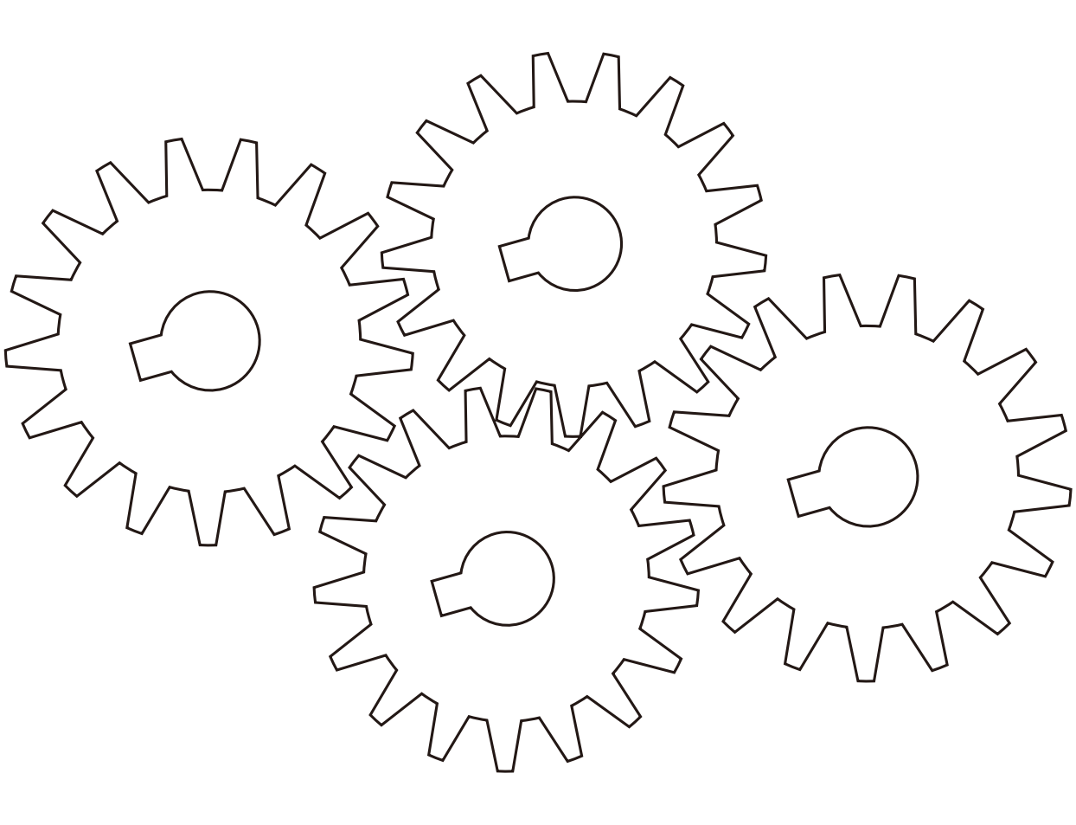
GSM Gate Opener
GSM Remote Switch
RTU5015



GSM Gate, Barrier, Shutter, Garage Door and Door opener
Open gate or garage door with a FREE call from your mobile phone!
Remote switching machines with a FREE call from your mobile phone!

GSM Gate Opener
GSM Remote Switch
RTU5015
User Manual

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This handbook has been designed as a guide to the installation and operation of RTU5015 GSM Gate Opener. Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.
We recommend that the advice of a registered electrician be sought before any Installation work commences.
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Upgrade Version: Ver1.3 Date: 2010-08-18:
1. Added Reset Function; 2. Added Authorized Number setup example; 3. Modified the GSM LED status for the 1.3 Version; 4. Corrected some Return SMS Texts, there're:

Ver1.2 Return SMS Text	V1.3 Return SMS Text
The door is opening in the / The door is closing in the	The relay is ON / The Relay is OFF
Enter the command error , please re-operation	Command error, please re send command
Disable Alarm / Enable Alarm	Alarm Inputs Disabled / Alarm Inputs Enabled
Door Open Retrun SMS / Door Open Not Retrun SMS	Relay action return SMS ON / Relay action return SMS OFF

1. Brief introduction

The GSM Gate Opener RTU5015 is a very simple device which can be used for authorized door access, controlling gates, switching of remote equipments, car parking systems. Actually the GSM Gate Opener RTU5015 can be used in places which require turning ON/OFF your system, machines, equipments remotely with a FREE call from your mobile phone and protect your assets.

Just dial from Authorized User number then the Barrier and doors are opened, or the machine are turn on or off by the GSM Gate Opener. There are no call costs, the GSM Gate Opener rejects the call from authorized number then carries out the turn ON/OFF action.

Moreover, the RTU5015 with 2 digital inputs for digital inputs, when any one of the inputs triggered, will start the siren or switch on the light, in the meanwhile, the RTU5015 will send SMS Alert the to owners immediately. This is very useful if you need protect your assets with low cost solution.

2.Safety Directions

Safe Startup
Do not use GSM Gate Opener when using GSM equipment is prohibited or might bring disturbance or danger.

Interference
All wireless equipment might interfere network signals of GSM Gate Opener and influence its performance.

Avoid Use at Gas Station
Do not use GSM Gate Opener at a gas station. Power off GSM Gate Opener when it near fuels or chemicals.

Power it off near Blasting Places
Please follow relevant restrictive regulations. Avoid using the device in blasting places.

Reasonable Use
Please install the product at suitable places as described in the product documentation. Avoid signal shielded by covering the mainframe.

Use Qualified Maintenance Service
Maintenance can be carried out only by qualified maintainer.

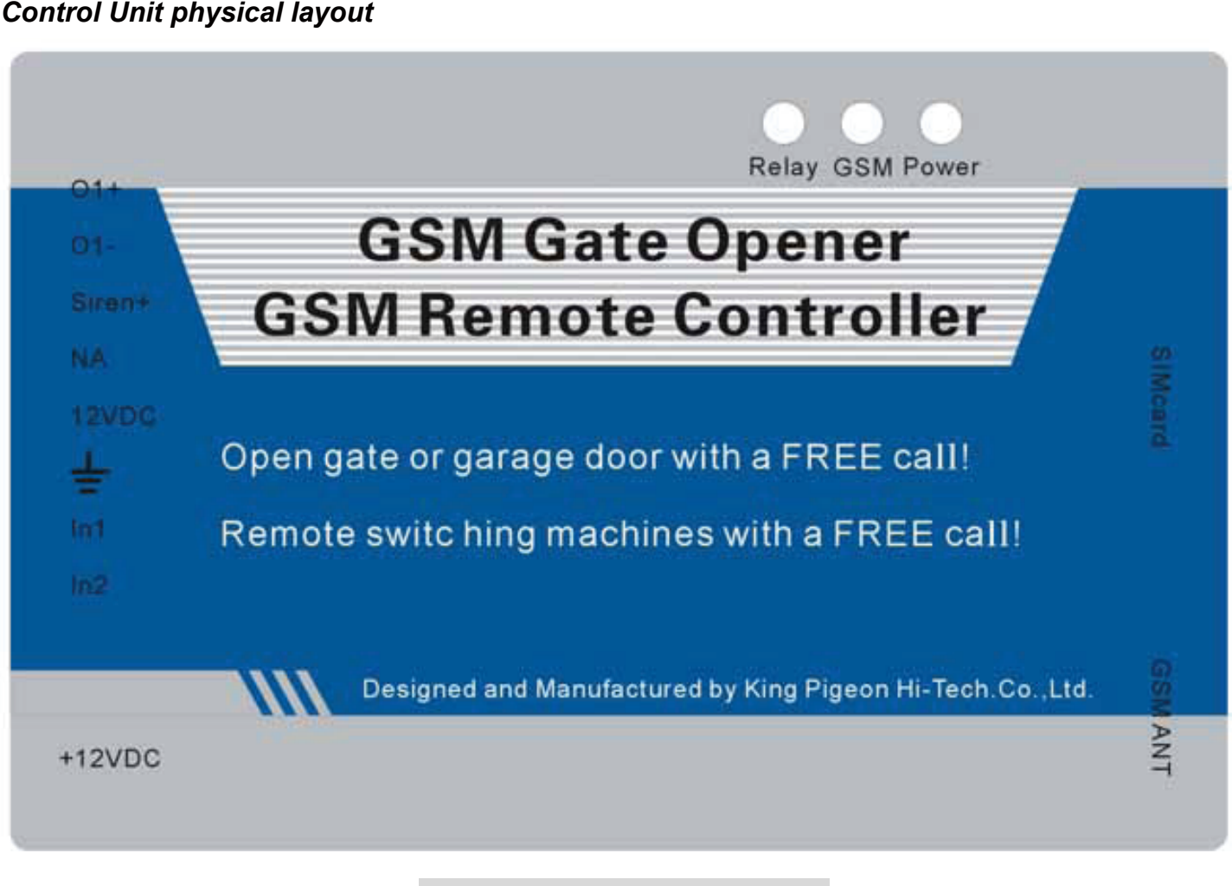
3. Standard Packing List

Control Unit X1, GSM ANT X1, User Manual X1(CD), Connector X1,AC/DC Adaptor X1.

Optional Accessories: (Wired Sensors)
PIR Motion Sensor, Glass Break Sensor, Magnetic Window Sensor, Temperature Sensor, Infrared Beam Fence, Vibration sensor, Siren.

4. Physical Layout

4.1 Control Unit physical layout


Relay GSM Power
O1+
O1-
Siren+
NA
12VDC
In1
In2
GSM Gate Opener
GSM Remote Controller
Open gate or garage door with a FREE call!
Remote switc hing machines with a FREE call!
Designed and Manufactured by King Pigeon Hi-Tech.Co.,Ltd.
SIMcard
GSM ANT
+12VDC

Interface Instruction

Relay	Relay Status, calling in, the relay will work, this LED Indicator will on. When the wired sensor triggered, the LED indicator will on, Otherwise, is off.
GSM	When insert the SIMcard into the Slot and power on, will flash 10S with red color, then the Led will change to Red color(not flash) for 3minutes(In this 3 minutes, you can send RESET to reset the RTU5015.) When registered GSM Network successful, will change to Green color(not flash). When calling in, the relay works, will change to Red color.
Power	External 12VDC Power LED indicator
O1 +	Output 1+, the relay rating is 3A/240VAC; connect to the switch of the lock or devices.
O1 -	Output 1 -, the relay rating is 3A/240VAC; connect to the switch of the lock or devices.
Siren+	Siren connector, connect to the Siren Positive.
NA	If need the siren start when the sensor triggered, must connect this connector with 12VDC connector. If not use the siren, then needn't connect it.
12VDC	Connect to the NA Point, when sensor triggered, will start the siren for 90Seconds. Also, it can be connected to wired sensor to supply 12VDC power for sensors if need.
⏚	Common, connect to Siren Negative, another wire of the two wired sensors.
IN1+	Digital input 1+, connect to one wire of the first wired sensor.
IN2+	Digital input 2+, connect to one wire of the second wired sensor.
+12VDC	The external power input. 12VDC, 1A.

5. Features

1. No call charges. the GSM Gate Opener rejects the call from authorized number then carries out the turn ON/OFF action on the first 'ring;
2. Multiple applications. (gates, bollards, barriers, garage doors, shutters and access doors or machines);
3. Secure - Using caller ID for identification, unknown callers are ignored;
4. Can be operated from anywhere, no distance limit;
5. Add or remove users by SMS Text command;
6. No need to provide a remote control for different users;
7. Up to 64 authorized phone numbers can be configured;
8. Two Digital inputs for door sensor, motion sensors or other sensors to protect your door and windows, when any one of them triggered, will send SMS alert message and start the siren immediately;
9. One output with relay rating 3A/240VAC for connecting the switch of the door or machines;
10. The relay action will return a SMS confirmation to the owner, this function is editable by user;
11. Based on GSM Network, applied to many applications.

6. Settings

Notice:

1. *The default Password is **1234**.*
2. *All the settings are through SMS commands, please edit the below SMS commands in your cell phone, then send to the RTU5015 Unit.*
3. *You can program the GSM Gate Opener with SMS commands using your phone. It is safe to do so because in addition to the fact that other people may not know the number of the SIM inserted*

in it, we also use a Password that makes it impossible for anybody, who doesn't know it, to access the system by chance.

4. *The relay output will change the close or open status by every call in, please note it. Means the first time call it, it will close the relay to switch on the lock, if the second call in is in the setting time, then the unit will ignore the setting time, and open the relay, to switch off the lock or machine.*
5. *The functions of the two inputs are the same. The two digital inputs will be in armed mode after 10minutes from the last call-in.*
6. *Remember that commands must be **CAPITAL LETTERS**. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.*
7. *The **pwd** in the commands is means the password, when you use it, please in stand of it by the digital number; the capital letters **PWD** is the command letter, use PWD directly.*
8. *If you use this model for gate open, you only need to change the password and setup the authorized numbers.*
9. *In some GSM operators they use different SMS parameter; the units can't return the SMS confirmation is normally. It is not product problem. Also, you can try to add the country code before the number, see the below settings:*

For example:

In China, the country code is 0086, or +86.

The user cell phone number is 13570810254 and has been assigned as a SMS Alert number, the simcard number in the panel is 13512345678.

Problem 1: Alarm but the user hasn't received the SMS Alert.

Solution: Please plus the country code while you setup the 13570810254 as SMS Alert number, means setup 008613570810254 to instead of the 13570810254.

Problem 2: The user number can receive the SMS Alert message from alarm panel, but the alarm panel can not receive the commands from the user number.

Solution: Please add country code to the simcard number in the alarm panel. Means send sms commands to 008613512345678 to instead of 13512345678.

Solution 3: When you use cell phone dial another one, what number it will be displayed then you can set the displayed number as dial numbers; when you use cell phone send SMS to another cell phone, what number it will be displayed then you can set the displayed number as SMS Alert number, just use the 00 to replace the "+", also, you can try the "+".

10. *Please write down the Authorized number list in a paper for review in further.*
11. *If you want to reset the RTU5015 to factory default, then please send **RESET** to it within 3 minutes after switch on the RTU5015. (The GSM Led in RED status, if the GSM LED change to GREEN, then the RTU5015 can not respond this command.)*
12. *If the command is incorrect, the RTU5015 will return: **Command error, please re send command.** So please check the Command, or add the country code before the telephone*

number or check the input is in ENGLISH INPUT METHOD and CAPS LOCK.

13. *The SMS commands that you will certainly use in the GSM Gate Opener are the following:*

6.1 Setup New Password

pwd#PWDnewpassword#PWDnewpassword#

if successful, the unit will return: **Password modified OK**.
For example, the original password is 1234, you want change it to 6666, then you can send the command below: **1234#PWD6666#PWD6666#**

6.2 Setup Authorized number

pwd#TELAuthorized Number#Serial Number#

E.g.: if you want to setup 13570810254 as the first user number, and the password is 1234,then you can send **1234#TEL13570810254#01#** to the RTU5015 unit.

Tips: 1. the authorized number means the one who can dial the RTU5015 unit to open it.
2.We strongly recommend that the serial number of 01 and 02 are cellphone number, because of the alarm message only send to the first and second position numbers;
3. The Serial Number is the position to store the authorized number, from 01~64.

6.3 Inquiry the Serial Number's Authorized number

pwd#TELSerial Number？

E.g.: If you want to know the authorized number at position 2, and the password is 1234,then you can send **1234#TEL02？** to check it.

6.4 Remove the Authorized Number

pwd#TEL#Serial Number#

(or you can overwrite with another number you wish to change it).
E.g.: if you want to remove the authorized number at position 12, and the password is 1234, then you can send **1234#TEL#12#**

6.5 Disable the digital inputs (Default is disable)

pwd#DA#

Tips: if you want to use the digital inputs, please enable it firstly.

6.6 Enable the digital inputs

pwd#EA#

Tips: if you enable the digital inputs function, the sensors will enter Armed status after 10minutes of the latest dial-in. in the first 10minutes, when the sensor triggered, will not alarm, after 10minutes, the unit in armed mode, when any sensor triggered, will start the siren (if you connected) or switch on the light(if you connect it) and send SMS to the Position 01 and 02 authorized numbers immediately.
This function is very useful for garage or other applications. It can protect the assets for you by GSM Network.

6.7 Inquiry Alarm Setting

pwd#AL?

Reply: **Alarm Inputs Disabled** or **Alarm Inputs Enabled.**
Tips: Alarm Inputs Disabled means disable the digital inputs, Alarm Inputs Enabled means Enable digital inputs.

6.8 Setup allow all calling in numbers can access it

pwd#AA#

Tips: This command allows anybody calling the SIM number to access it.
Warning! With the above command you allow free access to anybody calling!

6.9 Setup only authorized number can access it (Default)

pwd#AU#

Tips: With the above command you allow only people that are in the authorized number list can access the RTU5015. This is the standard and recommended option.
Inquiry this setting

pwd#AC?#

Relpy: **Allow all numbers can access it** or **Allow User Number can access it only**.

6.10 Setup the relay close time

pwd#GOTTime#

Tips: The time should be in 0~9.5seconds.
This command is useful in case you need to keep the relay closed (or button pressed) longer. The default time is 0.5seconds (500 ms). You can change it with the GOT command. The relay closed time is twice as the number you set, e.g.: if you set **pwd#GOT19#**, means the relay closed 19/2=9.5Seconds.
To check the value, you can use the command **pwd#GOT?** , the unit will reply the current value.

If you want to let the relay always closed until you call it next time, then you can set the time as 00, the format is **pwd#GOT00#**, the relay will be always closed until next time call in. in this case, only the 1st, 2nd, 3rd authorized number can access it. The other authorized numbers can not access the unit. This is very useful for remote switch on or switch off the electricity appliance or equipment or device for a long time.

6.11 Modify the digital input type

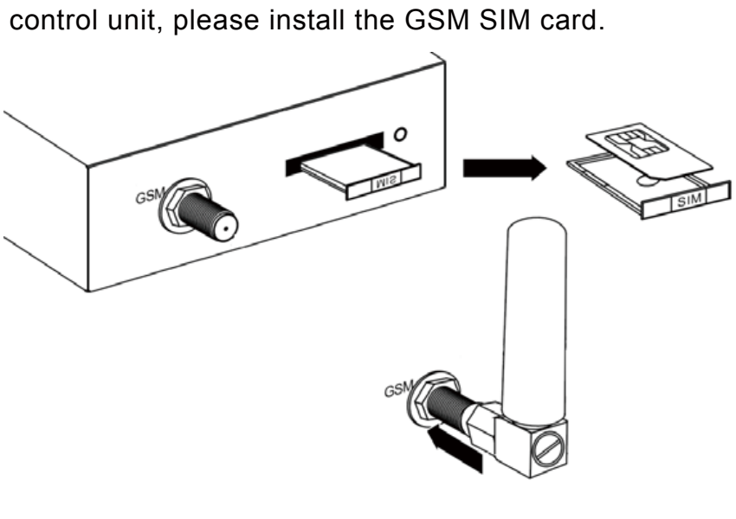
pwd#KEYNC#

Modify the digital input type as NC; if the sensor you used with this unit is NC, then you should set the unit as NC type.
Tips: when you set the digital inputs as NC, if you don't use the input, please connect the digital inputs by a wire to short it. Otherwise, it will alarm. E.g.: if you only use the input 2, then you should use a wire to

Before installing the control unit and sensors and sirens, please help to test the system firstly, including wired sensor, power supply, gsm signal, etc.

7.1 Insert SIMcard into Control Unit

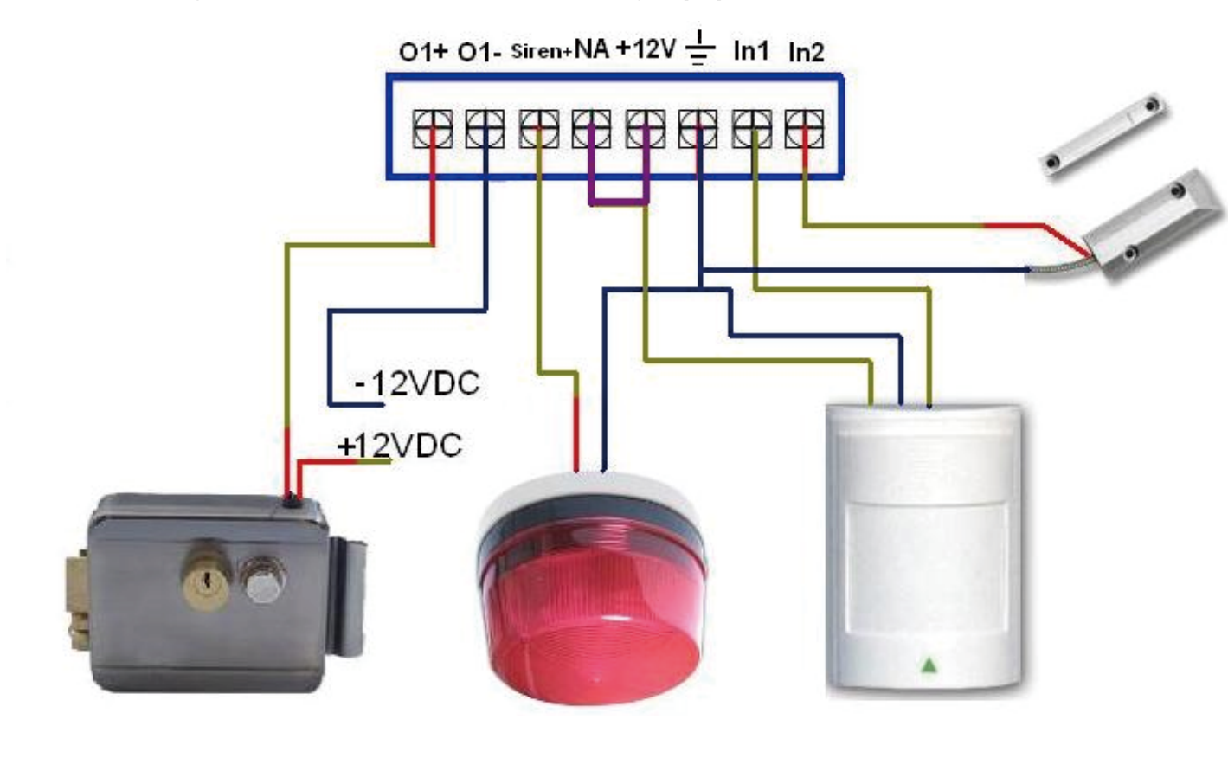
In the backside of the control unit, please install the GSM SIM card.

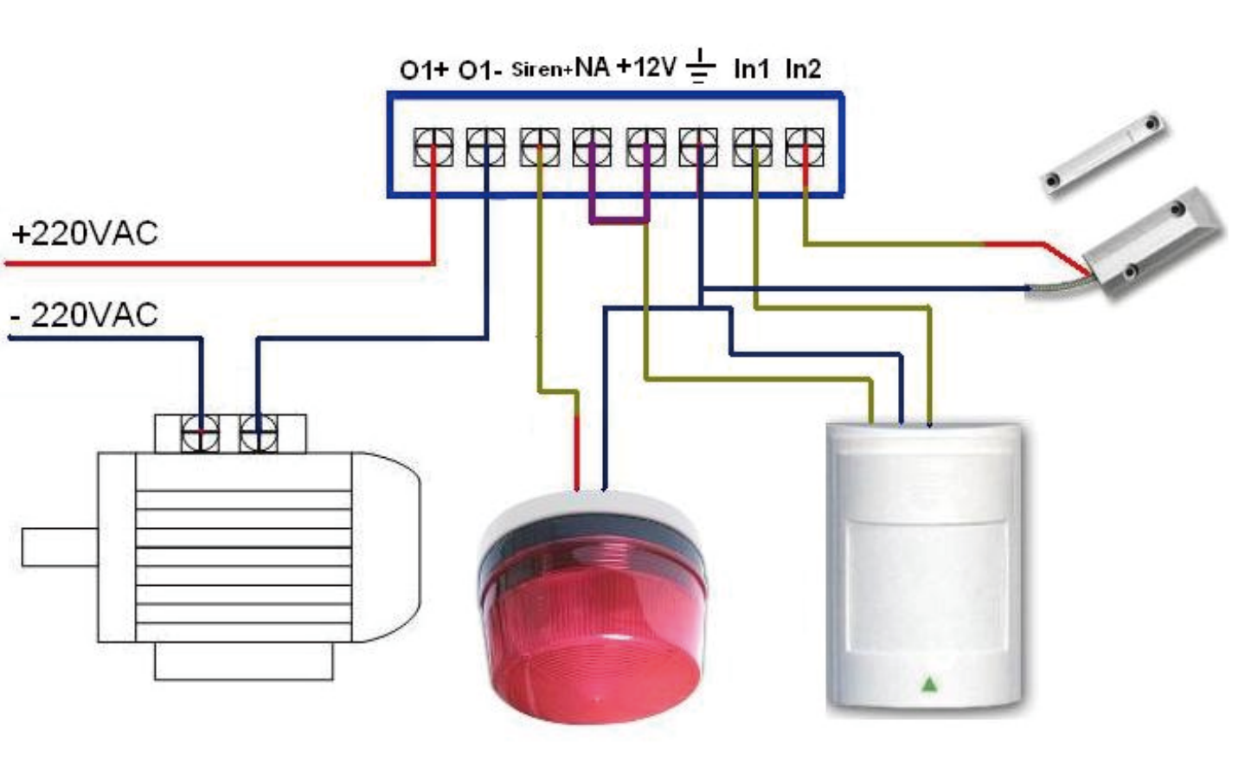


7.2 Connecting the Wired Sensors

Please help to see below wiring diagram, then fixed the related wired sensors, the sensors connect to the related digital inputs, and the siren should connect to the Siren and Com connection port.

7.3 Connecting the Electronic Lock or Electricity equipments





7.4 Install the Mainframe

The mainframe should be installed in the position that person can not get it, and there're with a power source as well as enough GSM signal coverage.

8. Technical specifications

Rated Voltage: 12VDC 1 A
Working temperature: -10℃～+60℃
Storage temperature: -20℃～+60℃
Relative humidity: 10-90%, No condensation
Work frequency: 900/1800MHz
Communication protocol: GSM PHASE 2/2+ (include data service)
Wired Zones: 2
Related Voltage of the Output Relay: 3A/240V AC
Net Weight: 0.50Kg

9. Important information

1) Please read the User Manual carefully before you install the Control Unit and set the Control Unit.
2) Install the system in a hidden place.
3) Avoid getting water into the Control Unit.
4) Have a secure connection to the main power supply.

10. Maintenance

1) In case of failure, please contact the distributor or manufacturer.
2) If the remote control works, but the Control Unit fails to send SMS texts, switch the power of Control Unit off and switch it on after one minute. Test this system after another minute, or check the settings are correct and the GSM Signals are strong enough.
3) If the Control Unit can run and sensors work, but cannot send SMS texts, please change SIM Card to check it.
4) If the problem cannot be solved, please contact the distributor or manufacturer.

11. Warranty

1) This system is warranted to be free of defects in material and workmanship for one year from the date of purchase.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions. In no event shall the manufacturer be liable for any alarm system altered by purchasers.

The End!